## Amendments to Claims

This listing of claims will replace all prior versions and listings of claims in the application:

## **Listing of Claims**

- 1. (Previously presented) A Multi-Analyte Profile (MAP) Test Panel comprising 75 or more subsets of microspheres, wherein the microspheres of one subset are distinguishable from those of another subset by their characteristic fluorescence signatures, and wherein the microspheres of the one subset are coupled to at least one reagent designed to interact selectively with a predetermined analyte.
- 2. (Currently amended) The MAP Test Panel of claim 1, further comprising 100 or more of the subsets of the microspheres.
- 3. (Previously presented) The MAP Test Panel of claim 1, wherein the characteristic fluorescence signatures are derived from at least three fluorescent dyes incorporated in the microspheres.
- 4. (Previously presented) The MAP Test Panel of claim 1, wherein the characteristic fluorescence signatures are derived from at least four fluorescent dyes incorporated in the microspheres.
- 5. (Previously presented) The MAP Test Panel of claim 1, wherein the at least one reagent comprises a small molecule, natural product, synthetic polymer, peptide, polypeptide, polysaccharide, lipid, nucleic acid, or combinations thereof.
- 6. (Previously presented) The MAP Test Panel of claim 1, wherein the predetermined analyte comprises a drug, hormone, antigen, antibody, protein, enzyme, DNA, RNA, or combinations thereof.
- 7. (Previously presented) A kit for assaying 75 or more predetermined analytes in a single pass through a flow analyzer comprising a Multi-Analyte Profile (MAP) Test Panel comprising 75 or more subsets of microspheres, wherein the microspheres of one subset are distinguishable from those of another subset by their characteristic fluorescence signatures, wherein the microspheres of the one subset are coupled to at least one reagent designed to interact selectively with a predetermined analyte, and wherein the kit further comprises vials, supplemental reagents, or any combination thereof.

## 8.-38. (Canceled)

- 39. (Withdrawn) A method of using a Multi-Analyte Profile (MAP) Test Panel to assess a subject's health or medical condition comprising:
- (a) exposing the one or more test samples obtained from a subject to a Multi-Analyte Profile (MAP) Test Panel comprising 20 or more subsets of microspheres, the microspheres of one subset being distinguishable from those of another subset by their characteristic fluorescence signatures and harboring at least one reagent designed to interact selectively, if not specifically, with a predetermined analyte, which interaction generates biochemical data concerning the predetermined analyte;
  - (b) gathering the biochemical data, if any, generated from the exposure;
- (c) comparing the biochemical data generated from the one or more samples obtained from the subject with accumulated biochemical data generated from test samples taken periodically from at least about 1,000 individuals over a given time interval, which accumulated biochemical data provide a relationship between one or more predetermined analytes and the health or medical condition of a plurality of individuals whose accumulated biochemical data share similar features; and
- (d) assessing the health or medical condition of the subject based, at least in part, on the results of the comparison.
- 40. (Currently amended) The MAP Test Panel of claim 1, further comprising 200 or more of the subsets of the microspheres.
- 41. (Currently amended) The MAP Test Panel of claim 1, further comprising 300 or more of the subsets of the microspheres.